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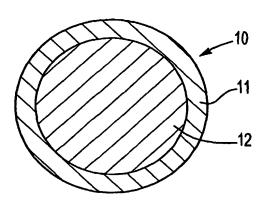
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(54) Title: COMPOSITION FOR MAKING METAL MATRIX COMPOSITES



(57) Abstract: In one embodiment, a composition (10) to be mixed with a molten metal to make a metal matrix composite, the composition characterized by: a ceramic reinforcing filler (12), the ceramic reinforcing filler not being wettable by molten aluminum and/or not being chemically stable in molten aluminum, the ceramic reinforcing filler being coated with a ceramic material, the ceramic material being wettable by and chemically stable in molten aluminum. In a related embodiment, a composition (20) to make a porous preform to be infiltrated by molten metal to make a metal matrix composite, the composition characterized by: a ceramic reinforcing filler (23), the ceramic reinforcing filler not being wettable by molten aluminum, the ceramic reinforcing filler being coated with a ceramic material (22) and optionally with a metal (21) such as nickel, the ceramic material being wettable by molten aluminum. The ceramic material can be coated on the ceramic reinforcing filler by a vacuum deposition technique such as vacuum sputtering.

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A. CLASSIFICATION OF SUBJECT MATTER IPC 7 C22C1/10 C23C C23C16/22 C23C16/06 C22C49/04 According to International Patent Classification (IPC) or to both national classification and IPC **B. FIELDS SEARCHED** Minimum documentation searched (classification system followed by classification symbols) IPC 7 C22C C23C Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched Electronic data base consulted during the international search (name of data base and, where practical, search terms used) EPO-Internal, PAJ, WPI Data C. DOCUMENTS CONSIDERED TO BE RELEVANT Citation of document, with indication, where appropriate, of the relevant passages Category ° Relevant to claim No. X PATENT ABSTRACTS OF JAPAN 1,8,15, vol. 0072, no. 63 (C-196), 19,20 24 November 1983 (1983-11-24) & JP 58 144441 A (NIPPON DENSO KK), 27 August 1983 (1983-08-27) abstract Υ 16,18 X LEE B-S ET AL: "LOW-TEMPERATURE 1,8,15, PROCESSING OF B4C-AL COMPOSITES VIA 19.20 INFILTRATION TECHNIQUE" MATERIALS CHEMISTRY AND PHYSICS, LAUSANNE, vol. 67, no. 1-3, 2001, pages 249-255. XP001183310 abstract Y see Introduction. 5-7,12, 18 -/--Further documents are listed in the continuation of box C. X Patent family members are listed in annex. Special categories of cited documents: *T* later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the "A" document defining the general state of the art which is not considered to be of particular relevance invention earlier document but published on or after the international "X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to filing date *L* document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified) involve an inventive step when the document is taken alone "Y" document of particular relevance; the claimed invention cannot be considered to involve an invention to cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art. "O" document referring to an oral disclosure, use, exhibition or document published prior to the international filing date but later than the priority date claimed *&* document member of the same patent family Date of the actual completion of the international search Date of mailing of the international search report 13 October 2004 25/10/2004 Name and mailing address of the ISA Authorized officer European Patent Office, P.B. 5818 Patentlaan 2 European Fatent Onice, F.B. 5816 Fatentia NL - 2280 HV Rijswijk Tel. (+31-70) 340-2040, Tx. 31 651 epo ni, Fax: (+31-70) 340-3016 Brown, A

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